

## **405 KAR 1:010. Definitions.**

RELATES TO: KRS Chapter 350

STATUTORY AUTHORITY: KRS 350.028

NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.028 requires the Environmental and Public Protection Cabinet adopt rules and administrative regulations for the strip mining of coal. This administrative regulation defines essential terms used in this chapter.

Section 1. Definitions. Unless otherwise specifically defined in this chapter or otherwise clearly indicated by their context, terms in this chapter shall have the meanings given in this administrative regulation.

(1) "Acid drainage" means water with a pH of less than six (6.0) discharged from active or abandoned mines and from areas affected by strip mining operations.

(2) "Acid-producing" or "acid-forming materials" means earth materials that contain sulfide mineral or other materials which, if exposed to air, water, or weathering processes, will cause acids that may create acid drainage.

(3) "Approximate original contour" means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, (when not necessary to support its approved postmining use) closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated; water impoundments may be permitted where the cabinet determines that they are in compliance with 405 KAR 1:220.

(4) "Area of land affected" means the area of land from which overburden is to be or has been removed and upon which overburden is to be or has been deposited and shall include all lands affected by the construction of new roads or the improvement or use of existing roads other than public roads, to gain access and to haul coal.

(5) "Aquifer" means a zone, stratum, or group of strata that can store and transmit water in sufficient quantities for a specific use.

(6) "Auger mining" means a method of mining coal at a cliff or highwall by drilling holes laterally into an exposed coal seam from the highwall and transporting the coal along an auger bit to the surface.

(7) "Bench" means the ledge, shelf or terrace formed in the contour method of strip mining.

(8) "Department" means the Department for Natural Resources, Environmental and Public Protection Cabinet.

(9) "Coal" means combustible, carbonaceous rock, classified as anthracite, bituminous, subbituminous, or lignite by American Society for Testing Materials designation 0-388-66.

(10) "Combustible material" means organic material that is capable of burning either by fire or through a chemical process (oxidation) accompanied by the evolution of heat and a significant temperature rise.

(11) "Commissioner" means the Commissioner of the Department of Natural Resources of the Environmental and Public Protection Cabinet.

(12) "Compaction" means the reduction of pore spaces among the particles of soil or rock generally done by running heavy equipment over the earth materials.

(13) "Degree" means the angular measurement of land slope from the horizontal, and in each case shall be subject to a tolerance of five (5) percent of error.

(14) "Cabinet" means the Environmental and Public Protection Cabinet.

(15) "Disturbed area" means those lands that have been affected by strip mining and reclamation operations.

(16) "Diversion" means a channel, embankment, or other manmade structure constructed for the

purpose of diverting water from one area to another.

(17) "Downslope" means the land surface between a valley floor and the projected outcrop of the lowest coal-bed being mined along each highwall.

(18) "Embankment" means an artificial deposit of material that is raised above the natural surface of the land and used to contain, divert, or store water, support roads or railways, or other similar purposes.

(19) "Erosion" means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

(20) "Fill bench" means that portion of the bench which is formed by depositing overburden beyond the cut section.

(21) "Final grade" means the finished elevation of any surface disturbance prior to replacement of topsoil.

(22) "Groundwater" means subsurface water that fills available openings in rock or soil material such that they may be considered water-saturated.

(23) "Gully erosion" means the erosion process whereby water accumulates in narrow channels over short periods and removes the soil from this narrow area to depths greater than one (1) foot.

(24) "Highwall" means the face of exposed overburden and coal in an open cut of a surface or for entry to an underground coal mine.

(25) "Hydrologic balance" means the relationship between the quality and quantity of inflow to, outflow from, and storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake, or reservoir. It encompasses the quantity and quality relationships between precipitation, run-off, evaporation, and the change in ground and surface water storage.

(26) "Hydrologic regime" or "hydrologic system" means the entire state of water movement in a given area. It is a function of the climate, and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form and falls as precipitation, moves thence along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

(27) "Imminent danger to the health and safety of the public" means the existence of any condition, or practice, or any violation of a permit or other requirement of applicable state laws and administrative regulations in a strip mining operation, which condition, practice, or violation could reasonably be expected to cause substantial physical harm to persons outside the permit area before such condition, practice, or violation can be abated. A reasonable expectation of death or serious injury before abatement exists if a rational person, subjected to the same condition or practice giving rise to the peril, would not expose himself or herself to the danger during the time necessary for abatement.

(28) "Impoundment" means a closed basin formed naturally or artificially built, which is dammed or excavated for the retention of water, sediment, or waste.

(29) "Intermittent or perennial stream" means a watercourse or part of a watercourse that flows continuously during all (perennial) or for at least one (1) month (intermittent) of the calendar year as a result of groundwater discharge or surface run-off. The term does not include an ephemeral stream which is one that flows for less than one (1) month of a calendar year and only in direct response to precipitation in the immediate watershed and whose channel bottom is always above the local water table.

(30) "Leachate" means a liquid that has percolated through soil, rock, or waste and has extracted dissolved or suspended materials.

(31) "Method of operation" means the method or manner by which the cut or open pit is made, the overburden is placed or handled, water is controlled and other acts are performed by the operator in the process of uncovering and removing the coal.

(32) "Noxious plants" means species that have been included on official state lists of noxious

plants for the State of Kentucky.

(33) "Operations" means all of the premises, facilities, roads and equipment used in the process of producing coal from a designated strip mine area or removing overburden for the purpose of determining the location, quality or quantity of a natural coal deposit or the activity to facilitate or accomplish the extraction or the removal of coal.

(34) "Operator" means any person engaged in strip mining who removes or intends to remove more than 250 tons of coal from the earth by strip mining within twelve (12) successive calendar months or who removes overburden for the purpose of determining the location, quality or quantity of a natural coal deposit.

(35) "Outslope" means the exposed area sloping away from a bench or terrace being constructed as a part of a strip mining and reclamation operation.

(36) "Overburden" means all of the earth and other materials, excluding topsoil, which lie above a natural deposit of coal and also means such earth and other material after removal from their natural state in the process of strip mining.

(37) "Permit" means the written document issued by the cabinet to the permittee pursuant to this chapter.

(38) "Permittee" means any person holding a valid permit to conduct strip mining and reclamation operations issued by the cabinet pursuant to this chapter.

(39) "Person" means any individual, partnership, corporation, association, society, joint stock company, firm, company, or other business organization.

(40) "Productivity" means the vegetative yield produced by a unit area for a unit of time.

(41) "Recharge capacity" means the ability of the soils and underlying materials to allow precipitation and run-off to infiltrate and reach the zone of saturation.

(42) "Reclamation" means the reconditioning of the area affected by strip mining under a plan approved by the cabinet.

(43) "Recurrence interval" means the precipitation event expected to occur, on the average, once in a specified interval. For example, the ten (10) year, twenty-four (24) hour precipitation event would be that twenty-four (24) hour precipitation event expected to be exceeded on the average once in ten (10) years. Magnitude of such events are as defined by the National Weather Service Technical Paper No. 40, "Rainfall Frequency Atlas of the U. S.," May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.

(44) "Rill erosion" means an erosion process in which numerous small channels only several inches deep are formed.

(45) "Roads" means access and haul roads constructed, used, reconstructed, improved, or maintained for use in strip mining and reclamation operations, including use by coal-hauling vehicles leading to transfer, processing, or storage areas. The term includes any such road used and not graded to approximate original contour within forty-five (45) days of construction other than temporary roads used for topsoil removal and coal haulage roads within the pit area. Roads maintained with public funds such as all federal, state, county, or local roads are excluded from this definition.

(46) "Run-off" means precipitation that flows overland before entering a defined stream channel and becoming stream-flow.

(47) "Safety factor" means the ratio of the available shear strength to developed shear stress on a potential surface of sliding determined by accepted engineering practice.

(48) "Secretary" means the Secretary of the Environmental and Public Protection Cabinet.

(49) "Sediment" means undissolved organic and inorganic material transported or deposited by water.

(50) "Sedimentation pond" means any natural or artificial structure or depression used to remove sediment from water and store sediment or other debris.

(51) "Sheet erosion" means an erosion process whereby a uniform layer of soil is removed from

the land surface by run-off water.

(52) "Significant, imminent environmental harm to land, air or water resources" is determined as follows:

(a) An environmental harm is an adverse impact on land, air, or water resources, including but not limited to plant and animal life.

(b) An environmental harm is imminent if a condition, practice or violation exists which:

1. Is causing such harm; or

2. May be reasonably expected to cause such harm at any time before the end of the reasonable abatement time.

(c) An environmental harm is significant if that harm is appreciable and not immediately reparable.

(53) "Slope" means average inclination of a surface, measured from the horizontal, normally expressed as a unit of vertical distance to a given number of units of horizontal distance (e.g. 1v to 5h = 20 percent = 11.3 degrees).

(54) "Soil horizons" means contrasting layers of soil lying one below the other, parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The three (3) major soil horizons are:

(a) "A horizon." The uppermost layer in the soil profile often called the surface soil. It is the part of the soil in which organic matter is most abundant, and where leaching of soluble or suspended particles is the greatest.

(b) "B horizon." The layer immediately beneath the A horizon and often called the subsoil. This middle layer commonly contains more clay, iron, or aluminum than the A or C horizons.

(c) "C horizon." The deepest layer of the soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity.

(55) "Spoil" means overburden that has been removed during strip mining.

(56) "Stabilize" means any method used to control movement of soil, spoil piles, or areas of disturbed earth and includes increasing bearing capacity, increasing shear strength, draining, compacting, or revegetating.

(57) "Strip mining" means the breaking of the surface soil in order to facilitate or accomplish the extraction or removal of minerals, ores, or other solid matter; any activity or process constituting all or part of a process for the extraction or removal of minerals, ores, and other solid matter from its original location; and the preparation, washing, cleaning, or other treatment of minerals, ores, or other solid matter so as to make them suitable for commercial, industrial, or construction use; but shall not include the extraction of coal by a land owner for his own noncommercial use from land owned or leased by him; the extraction of coal as an incidental part of federal, state, or local government financed highway or other construction under administrative regulations established by the cabinet nor shall it include the surface effects or surface impacts of underground coal mining.

(58) "Subirrigation" means irrigation of plants with water delivered to the roots from underneath.

(59) "Surface water" means water, either flowing or standing, on the surface of the earth.

(60) "Suspended solids" means organic or inorganic materials carried or held in suspension in water that will remain on a 0.45 micron filter.

(61) "Toxic-forming materials" means earth materials or wastes which, if acted upon by air, water, weathering, or microbiological processes, are likely to produce chemical or physical conditions in soils or water that are detrimental to biota or uses of water.

(62) "Toxic-mine drainage" means water that is discharged from active or abandoned mines and other areas affected by strip mining operations and which contains a substance which through chemical action or physical effects is likely to kill, injure, or impair biota commonly present in the area that might be exposed to it.

(63) "Valley fill and head-of-hollow fill" means a structure consisting of any materials other than waste placed so as to encroach upon or obstruct to any extent any watercourse other than those

minor watercourses located on highland areas where overland flow in natural rills and gullies is the predominant form of run-off. For example, such fills are normally constructed in the uppermost portion of a V-shaped valley in order to reduce the upstream drainage area (head-of-hollow fills). Fills located further downstream (valley fills) must have larger diversion structures to minimize infiltration. Both fills are characterized by rock underdrains and are constructed in compacted lifts from the toe to the upper surface in a manner to promote stability.

(64) "Waste" means earth materials, which are combustible, physically unstable, or acid-forming or toxic-forming, washed or otherwise separated from product coal and are slurried or otherwise transported from coal processing facilities or preparation plants after physical or chemical processing, cleaning, or concentrating of coal.

(65) "Water table" means upper surface of a zone of saturation, where the body of groundwater is not confined by an overlying impermeable zone. (4 Ky.R. 370; eff. 5-3-78; Am. 467; 5 Ky.R. 183; eff. 8-23-78; TAm eff. 8-9-2007.)